

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

REMARKS

This Amendment is submitted in response to the non-final Office Action mailed on March 27, 2006. Claims 1-15 are pending before the Amendment. Claims 6, 9, 11, and 14 have been amended and claims 1-5, 7, 8, 10, 12, 13 and 15 have been cancelled. Applicants respectfully submit that this application is in complete condition for allowance and request reconsideration of the application in this regard.

Election/Restrictions

Applicants hereby confirm the provisional election without traverse of Species B and Bii made by Applicants' undersigned representative on March 16, 2006. Claims 6, 9, 10, 11, and 16, of which dependent claim 10 has been cancelled, read on the elected Species.

Rejections under 35 USC § 112, 2nd Paragraph

Claims 9 and 14 stand rejected under 35 USC § 112, 2nd Paragraph as being indefinite. Applicants have amended claims 9 and 14 in a manner believed sufficient for the Examiner to withdraw the rejection.

Rejections under 35 USC § 102

Claim 6 over Barth

Claim 6 stands rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 6,682,702 to Barth et al. (hereinafter *Barth*). Applicants have amended claim 6 to add the subject matter of claim 10, which is not subject to this rejection. Consequently, Applicants respectfully request that the rejection be withdrawn.

Claim 6 is patentable over *Barth* for additional reasons. Specifically, *Barth* discloses filling the wells (104) in an existing multi-well test plate (101) with liquid assay samples, then applying adhesive to a surface (112) of a cap (113), and then adhesively bonding the cap (113) with the existing multi-well test plate (101) to close the wells (104) and define reaction chambers. In view of this specific disclosure, *Barth* is not making a multi-well test plate, but is instead applying a cap (113) to an existing multi-well test plate (101) that is pre-filled with liquid assay samples. The cap (113) includes chemical reactants disposed in regions (115) correlated spatially with the wells (104). *Barth* fails to disclose “transferring an adhesive arranged in a configuration corresponding to the pattern from a transfer member to the upper frame portion by flexographic printing.” Instead, *Barth* is transferring adhesive to a cap (113). The cap (113) in *Barth* lacks wells arranged in a pattern and configured for receiving liquid assay samples. *Barth* fails to disclose “contacting the transparent panel with the upper frame portion such that the adhesive is disposed between the transparent panel and the upper frame portion.” Instead, *Barth* contacts the cap (113) with an existing multi-well test plate (101). *Barth* fails to disclose “curing the adhesive to adhesively bond the upper frame portion and the transparent panel to close one end of each of the wells and leave an opposite end of each of the wells open for receiving liquid.” Instead, *Barth* discloses curing the adhesive to bond the cap (113) with the existing multi-well test plate (101) to close the only remaining open end of the wells (104). Because of at least these deficiencies, *Barth* fails to disclose a method for making a multi-well plate. Consequently, Applicants respectfully request that the rejection be withdrawn.

The Examiner further contends that *Barth* “teaches transferring an adhesive arranged in a configuration corresponding to the pattern from a transfer member to the upper frame portion (column 18, lines 26-34; column 12, lines 43-46 – note adhesive can be applied to the transparent panel and/or frame portion).” Applicants cannot find the disclosure in *Barth* that would support the

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Examiner's contention as, instead, the adhesive is applied to a cap (113) that is subsequently applied to an existing multi-well test plate (101) in a dry transfer after the wells (104) are filled with liquid assay samples. Even if the cap (113) were identified as a panel of a multi-well test plate, which it is not, applying adhesive to the upper frame portion of the multi-well test plate (101) after the wells (104) are filled would risk contaminating the liquid assay samples with adhesive. This is a primary reason why *Barth* discloses applying the adhesive to surface (112) on the cap (113). Consequently, a person having ordinary skill in the art would not interpret column 18, lines 26-34; column 12, lines 43-46 from *Barth* to teach that adhesive can be applied to the upper frame portion of a multi-well test plate for bonding with a panel to define wells with an open end. For at least this additional reason, Applicants respectfully request that the rejection be withdrawn.

Claim 6 over Tanner

Claim 6 stands rejected under 35 U.S.C. § 102(a) as anticipated by U.S. Pub. No. 2003/0031829 to Tanner et al. (hereinafter *Tanner*). Applicants have amended claim 6 to add the subject matter of claim 10, which is not subject to this rejection. Consequently, Applicants respectfully request that the rejection be withdrawn.

Claim 6 is patentable over *Barth* for additional reasons. Specifically, *Tanner* fails to clearly disclose that the adhesive is applied in a pattern. In fact, paragraph [0071] of *Tanner* merely describes applying a "thin film" of adhesive to a carrier belt (which then transfers the "thin film" to the upper plate), not a "thin patterned film" of adhesive. This is inconsistent with the Examiner's interpretation of Figure 2 in *Tanner*. Figure 3 in *Tanner* corroborates the Applicants' construction in that the adhesive layer (28) is depicted as present between adjacent wells (16). This is also inconsistent with the Examiner's interpretation of Figure 2 in *Tanner*. To meet the Examiner's construction of

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Figure 2 in *Tanner*, somehow the adhesive, which is applied as a thin film that is presumably unbroken and continuous, has to spontaneously remove itself from the regions inside the well sidewalls (i.e., spontaneously pattern itself after application) and the regions between adjacent wells to make these teachings agree. For at least this additional reason, Applicants respectfully request that the rejection be withdrawn.

Rejections under 35 USC § 103

Claims 10 and 11 over Barth in view of Razavi

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Barth* in view of U.S. Pub. No. 2004/0032093 to Razavi (hereinafter *Razavi*). The Office Action contends on page 6 that it would have been obvious to modify *Barth*, which fails to disclose flexographic printing, as taught by *Razavi*. Claim 11 is an independent claim. As mentioned above, Applicants have amended independent claim 6 to add the subject matter of dependent claim 10, now cancelled. Consequently, the following remarks apply equally to independent claims 6 and 11. Applicants respectfully traverse this rejection.

Applicants submit that the Examiner's suggested modification to *Barth* based upon the disclosure in *Razavi* is improper. *Razavi* fails to remedy the deficiencies in the disclosure of *Barth*. Specifically, *Razavi* is also directed to adhesively bonding a cap to an existing multi-well test plate to close the remaining open end of each of the wells after the liquid assay samples are added to the wells through those open ends. Thus, even if these references were combined, the combination would not disclose all of the features of claims 6 and 11 as the combined disclosure is not directed to adhesively bonding a panel with an upper frame portion to form a multi-well test plate. For at least this reason, the

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Office Action fails to support *prima facie* obviousness. Consequently, Applicants respectfully request that the rejection be withdrawn.

Assuming *arguendo* that the combination of *Barth* and *Razavi* did disclose all features of claims 6 and 11, which it does not, Applicants submit that the motivation to modify *Barth* stated in the Office Action is insufficient for additional reasons. The Office Action concludes that “it would have been obvious to one of ordinary skill in the art to use flexographic printing to transfer the adhesive pattern to the frame portion of *Barth* because such an adhesive transfer technique is known in the multi-well test plate art as an alternative to a variety of other adhesive transfer techniques for transferring an adhesive to a substrate wherein the adhesive is arranged in a configuration corresponding to the pattern defined by the walls that form the wells in a frame portion, as taught by *Razavi* (sections [0002, 0006, 0015, 0016]).” The Examiner asserts that because *Razavi* teaches multiple adhesive application methods, including flexography that can be used to transfer an adhesive to a substrate in a patterned configuration, then a person having ordinary skill in the art would appreciate that the disclosure in *Barth* could be modified using any of the application methods taught by *Razavi*. This rationale fails to address why a person having ordinary skill in the art would be specifically motivated to transfer an adhesive pattern to the cap in *Barth* by flexography and, moreover, to somehow modify the combination to disclose a method for forming a multi-well test plate. Both *Barth* and *Razavi* disclose a cap for closing the wells of an existing multi-well test plate after the liquid assay samples are added. For at least this additional reason, the Office Action fails to support *prima facie* obviousness. Consequently, Applicants respectfully request that the rejection be withdrawn.

Claims 9 and 14 over Barth and Razavi in view of Jordan

Claims 9 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Barth* and *Razavi* in view of U.S. Pat. No. 6,655,281 to Jordan et al. (hereinafter *Jordan*). *Jordan* fails

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

to cure the deficiencies of *Barth* and *Razavi*. Because claim 9 depends from independent claim 6 and claim 14 depends from independent claim 11, Applicants submit that these claims are also patentable. Furthermore, each of these claims recites a unique combination of elements not disclosed or suggested by the combination of *Barth*, *Razavi* and *Jordan*.

Claims 10 and 11 over Tanner in view of Razavi

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tanner* in view of *Razavi*. The Office Action contends on page 7 that it would have been obvious to modify *Tanner*, which fails to disclose flexographic printing, as taught by *Razavi*. Claim 11 is an independent claim. As mentioned above, Applicants have amended independent claim 6 to add the subject matter of dependent claim 10, now cancelled. Consequently, the following remarks apply equally to independent claims 6 and 11. Applicants respectfully traverse this rejection.

Applicants submit that the suggested modification to *Tanner* based upon *Razavi* is improper. *Razavi* applies an adhesive film to one side of a sealing material by flexography. *Razavi* discloses that the sealing material carrying the adhesive film is subsequently adhesively bonded by a dry transfer to a multi-well test plate as a cap that completely seals the wells of the multi-well test plate. *Razavi* fails to disclose that an adhesive pattern applied by flexography could be successfully used to assemble the panel and upper frame portion of a multi-well test plate, as taught by *Tanner*. At the least, the panel and upper frame portion in *Tanner* that are assembled to form the multi-well test plate could not be formed by a sheet of sealing material that has adhesive applied to only one side, as taught by *Razavi*. For at least this reason alone, the Office Action fails to support *prima facie* obviousness. Consequently, Applicants respectfully request that the rejection be withdrawn.

Applicants submit that the suggested modification to *Tanner* based upon *Razavi* is improper for additional reasons. *Razavi* applies an adhesive by flexography to one side of a sealing member that is subsequently dry transferred to seal the wells of a multi-well plate after the liquid assay samples are added to the wells of the multi-well test plate. Hence, a person having ordinary skill in the art would conclude from the teachings of *Razavi* that, if the adhesive is applied by flexography, then the panel and frame portion of *Tanner* should be adhesively bonded after the liquid assay samples are added to the wells (16). This is not possible because, at the least, the wells (16) have open bottoms sealed by the panel (22) when the panel (22) and upper frame portion (20) are adhesively bonded together. Moreover, *Razavi* only teaches applying adhesive to one side of the sealing member. Hence, the panel (22) and upper frame portion (20) of *Tanner* would not be adhesively bonded together if the teachings of *Razavi* are followed to attempt to modify *Tanner*. Consequently, the multi-well test plate (10) in *Tanner* would be rendered unsatisfactory for its intended purpose. This is not permitted under MPEP 2143.01(V). The Examiner's suggested modification would also change the principle of operation of the multi-well test plate (10) in *Tanner*. This attempted change in the principle of operation is prohibited under MPEP 2143.01(IV). For at least these reasons, the Office Action fails to support *prima facie* obviousness. Consequently, Applicants respectfully request that the rejection be withdrawn.

As explained above, *Tanner* fails to clearly disclose that the adhesive is applied in a pattern. As a result, a person having ordinary skill in the art would understand that the adhesive patterning taught by *Razavi* would not be required in *Tanner* to adhesively bond the subject panel and upper frame portion. For at least this additional reason, the Office Action fails to support *prima facie* obviousness. Consequently, Applicants respectfully request that the rejection be withdrawn.

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Claim 9 over Tanner and Razavi in view of Jordan

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tanner* and *Razavi* in view of *Jordan*. *Jordan* fails to cure the deficiencies of *Tanner* and *Razavi*. Because claim 9 depends from independent claim 6, Applicants submit that this claim is also patentable. Furthermore, claim 9 recites a unique combination of elements not disclosed or suggested by the combination of *Tanner*, *Razavi* and *Jordan*.

Claim 14 over Tanner, Razavi, and Jordan in view of Barth

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tanner*, *Razavi*, and *Jordan* in view of *Barth*. *Barth* fails to cure the deficiencies of *Tanner*, *Razavi*, and *Jordan*. Because claim 14 depends from independent claim 11, Applicants submit that this claim is also patentable. Furthermore, claim 14 recites a unique combination of elements not disclosed or suggested by the combination of *Tanner*, *Razavi* and *Jordan*.

Claim 11 over Khan in view of Razavi

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pub. No. 2004/0020595 to *Khan* et al. (hereinafter *Khan*) in view of *Razavi*. The '785 application and *Khan* were, at the time the invention of the '785 application was made, owned by Nalge Nunc International Corporation. The executed assignment document for *Khan*, which is a continuation of Application No. 09/427,235, is recorded at Reel 010345, Frame 0957. The executed assignment document for the '785 application is recorded at Reel 014984, Frame 0829. Consequently, *Khan* is disqualified from being used in a rejection under 35 U.S.C. §103(a) against the claims of the '785 application by virtue of 35 U.S.C. §103(c). Applicants therefore request that this rejection be withdrawn.

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Claims 6, 9, 10 and 14 over Khan and Razavi in view of Jordan, Barth, and Tanner

Claims 6, 9, 10 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Khan* and *Razavi* in view of *Jordan, Barth, and Tanner*. Because *Khan* has been disqualified as a valid reference under 35 U.S.C. § 103(c)/102(e), Applicants respectfully request that the rejection be withdrawn.

Double Patenting

Claim 11 stands rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of *Khan* in view of *Razavi*. Claims 6, 9, 10, and 14 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of *Khan* in view of *Razavi, Jordan, Barth, and Tanner*. The application that published as U.S. Pub. No. 2004/0020595 has subsequently issued as U.S. Pat. 7,005,029. In response, a Terminal Disclaimer has been submitted by way of this Amendment to overcome the Examiner's rejections, in accordance with 37 C.F.R. § 1.321(c). Accordingly, Applicants respectfully request that the Examiner withdraw the rejection.

Conclusion

Applicants have made a bona fide effort to respond to each and every requirement set forth in the Office Action. In view of the foregoing remarks, this application is submitted to be in complete condition for allowance and, accordingly, a timely notice of allowance to this effect is earnestly solicited. If there is any additional matter that may be resolved by telephone or fax, the Examiner is invited to contact the undersigned to expedite issuance of this application.

Application No. 10/776,785
Amendment dated July 27, 2006
Reply to Office Action of March 27, 2006

Applicants do not believe that any fees are due in connection with this submission other than a one-month time extension fee and a terminal disclaimer fee. However, if such petition is due or any fees are necessary, the Commissioner may consider this to be a request for such and charge any necessary fees to deposit account 23-3000.

Respectfully submitted,
WOOD, HERRON & EVANS, L.L.P.

/William R. Allen/
William R. Allen, Reg. No. 48,389

2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202
(513) 241-2324 (voice)
(513) 421-7269 (facsimile)